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Two New Subspecies of Gastropoda (Mollusca) from Korean Waters

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韓國 海産 腹足綱(軟體動物 門)의 2新亞種

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摘 要

1982年 8月부터 1990年 11월까지 南韓의 4個 地域에서 採集한 韓國産 腹足類를 同定한 結果 2新亞種 [*Scelidotoma vadososinuata hoonsooi*, n. subsp., *Buccinum mirandum koreanum*, n. subsp.]이 밝혀졌기에 이들 新亞種을 報告한다.

Key words: Two New Subspecies, Gastropoda, Mollusca, Korea .

INTRODUCTION

As a result of the Study on Gastropodous specimens collected at four localities in South Korea from August, 1982 to November, 1990, we report two subspecies of Gastropoda new to science. *Scelidotoma vadososinuata hoonsooi*, n. subsp. was collected from Oeyönyöldo Hoenggyön-do in Ch'ungch'öngnam-do and *Buccinum mirandum koreanum*, n. subsp. collected from Changho, Sach'ön in Kangwon-do and

This paper is dedicated to Professor Hoon Soo Kim on the occasion of his 70th birthday.

Kuryongp'o in Kyöngsangbuk-do. All the type specimens are deposited in the Department of Biology, Sung Kyun Kwan University, except one paratype specimen (NSMT-Mo 69738) of *Buccinum mirandum koreanum*, n. subsp which is deposited in National Science Museum, Tokyo Japan.

DESCRIPTIONS

Class Gastropoda Cuvier, 1797	腹足綱
Order Archaeogastropoda Thiele, 1925	原始腹足目
Family Fissurellidae Fleming, 1822	구멍삿갓조개科
Genus <i>Scelidotoma</i> McLean, 1966	흰구멍삿갓조개屬(新稱)

1. *Scelidotoma vadososinuata hoonsooi*, n. subsp. 장수삿갓조개(新稱) (Plate-figs. 1, 2; Fig. 1)

Material examined: Holotype (SKK-501051101) — Oeyönyöldo Hoenggyöndo (10m deep), Ch'ung ch'öngnam-do, 28/VII/1988 (SCUBA).

Measurements (holotype): Height of shell 9.65mm, length of aperture 39.65mm, breadth of aperture 27.05mm.

Description: Shell large for family, thick but not solid, and pale yellowish white; its shape rather oblong ovate, strongly depressed patelliform, and narrowing to anterior margin from apical view. Aperture attaining to about 40mm in length. Apex situated at about 3/5 of total length from anterior margin and somewhat elevated and curved posteriorly. Anterior slope longer than posterior slope and weakly convex; posterior slope concave just below apex. Surface with many radial sculptures from apex to margin, which consisting of about 20 primary ribs and 1-3 secondary riblets between any two primary ribs; primary ribs on posterior portion stronger than those of anterior portion and slightly extruding at margin. Anal fasciole from apex to anterior end stout and swollen. Anal notch at anterior end of anal fasciole rather deeply sinuated.

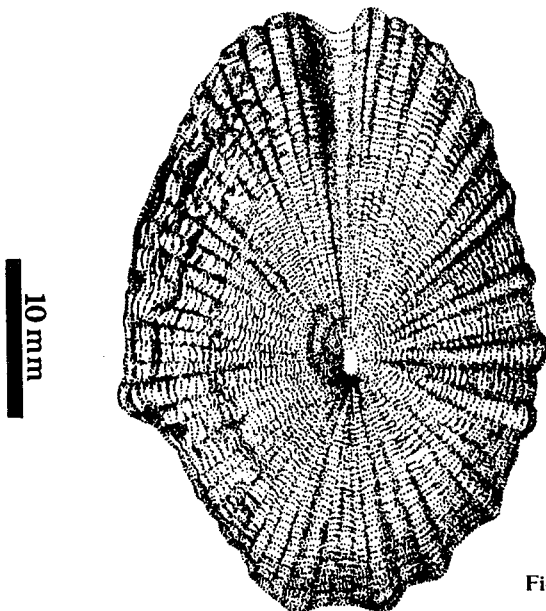


Fig. 1. *Scelidotoma vadososinuata hoonsooi*, n. subsp.

Interior white but dull. Muscle scar distinctly impressed and polished, and horseshoe-shaped with one inturned hooked process. Anal furrow distinctly marked, corresponding to anal fasciole on surface and also weakly crenulated by radial sculpture on surface.

Radula: Rhipidoglossate. Radula formula $\infty + 5 + 1 + 5 + \infty$. Central tooth trapezoidal in shape. 5 lateral teeth present; 1st to 4th lateral teeth slender, with small cusps at tip; 5th lateral tooth large, with one strongly acute median cusp and one lateral cusp.

Etymology: The subspecific name is in honor of Dr. Hoon Soo Kim who has contributed a great deal to the knowledge of Korean invertebrates.

Remarks: *Scelidotoma vadososinuata hoonsooi* n. subsp. resembles *Scelidotoma vadososinuata vadososinuata* (Yokoyama, 1922) in general features, but differs from latter in having the narrower and much more depressed shell with the imbricated radial sculpture crossing the lamellate growth lines and the distinctly sinuated anal notch at the frontal end of anal fasciole.

Order Neogastropoda Thiele, 1929 新腹足 目
 Family Buccinidae Rafinesque, 1815 물레고둥 科
 Genus *Buccinum* Linne, 1758 물레고둥 屬(新稱)

2. *Buccinum mirandum koreanum*, n. subsp. 굵은가시물레고둥(新稱) (Plate-figs. 3, 4; Fig. 2)

Material examined: Holotype (SKK-503043601)— Sach'ŏn, Kangwon-do, 18/X I/1990 (M.K. Lee). Paratype — 2 specimens (1 specimen is deposited in National Science Museum, Tokyo Japan. Reg. No. NSMT-Mo 69738) Sach'ŏn, Kangwon-do, 18/X I/1990 (M.K. Lee); 3 specimens, Kuryongp'o, Kyŏngsangbuk-do, 11/VIII/1982 (B.L. Choe); 1 specimen, Changho, Kangwon-do, 16/VIII/1982 (B.L. Choe).

Measurements (holotype): Height of shell 34.20mm, breadth 18.25mm.

Description: Shell small for genus, rather thin, ovate, yellow to brown, and usually variegated with blackish brown patches arranged obliquely and scattered spots on spiral cords, and with conically elevated spire of seven whorls. Embryonic conch of two whorls smooth, polished and brown, usually eroded away in

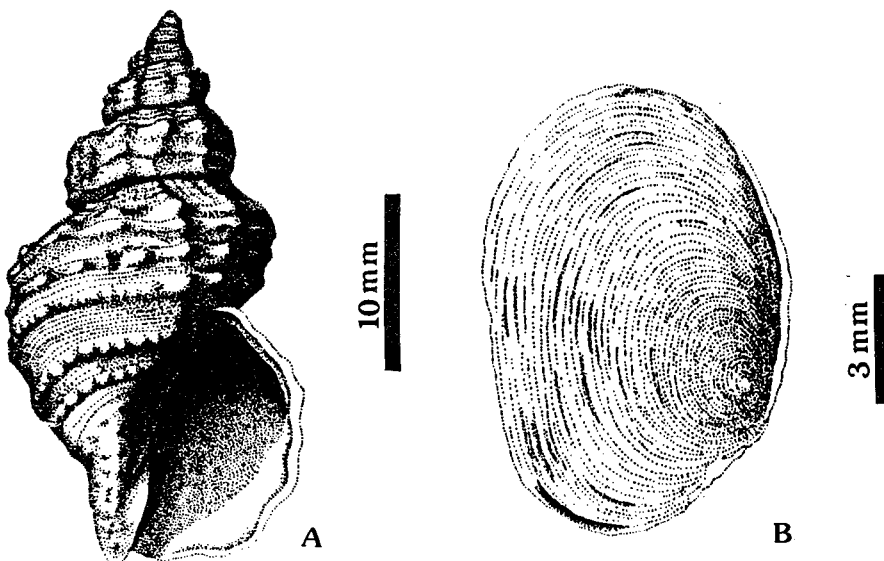


Fig. 2. *Buccinum mirandum koreanum*, n. subsp. A, Shell; B, Operculum.

fully grown specimens. Teleoconch of 5 inflated whorls with distinct spiral cords usually 3 or 4 in number, upper one of which forming distinct shoulder angle. Axial ribs low and oblique, bearing beaded nodules on spiral cords. Growth lines weakly and densely set all over surface of body. Suture distinctly constricted and somewhat beaded. Body whorl large, occupying about 7/10 of shell height, with rounded periphery; usually 4 spiral cords above periphery and several weaker spiral cords on base.

Aperture ovate, with its inside orange to brown. Outer margin gently curved, slightly thickened and expanded at edge in fully grown specimens. Inner margin covered by thin callus. Columellar margin white and thickened at edge. Siphonal canal short but wide and curved backward. Fasciole distinctly formed in outside of columellar margin.

Thin operculum, horny, roundly ovate, and pale brown; nucleus of operculum situated eccentrically to outer margin; growth lines concentrically arranged from nucleus on outer surface.

Radula: Rachiglossate, radula formula 1 + 1 + 1. Central tooth transversely wide quadrate in shape, with five subequal sized cusps on hind edge margin; lateral tooth with three large cusps; outer cusp largest, acute inwardly and middle one smallest and narrow.

Etymology: The subspecific name is from the Republic of Korea, to which the type locality of the present subspecies was collected.

Remarks: This new subspecies is closely related to *Buccinum mirandum mirandum* Smith, 1875, which has a wide range of distribution through the northern Japan, Okhotsk Sea and Siberia in general features, but differs from any other subspecies of *Buccinum mirandum* in having the smaller and thinner shell with conically taller spire and usually four spiral cords on the whorls. *Buccinum mirandum mirandum* has typically very solid and roundly inflated shell with usually two spiral cords on the whorl.

ABSTRACT

Two new subspecies of Gastropoda, *Scelidotoma vadososinuata hoonsooi* (Archaeogastropoda) and *Buccinum mirandum koreanum* (Neogastropoda) are reported in this paper.

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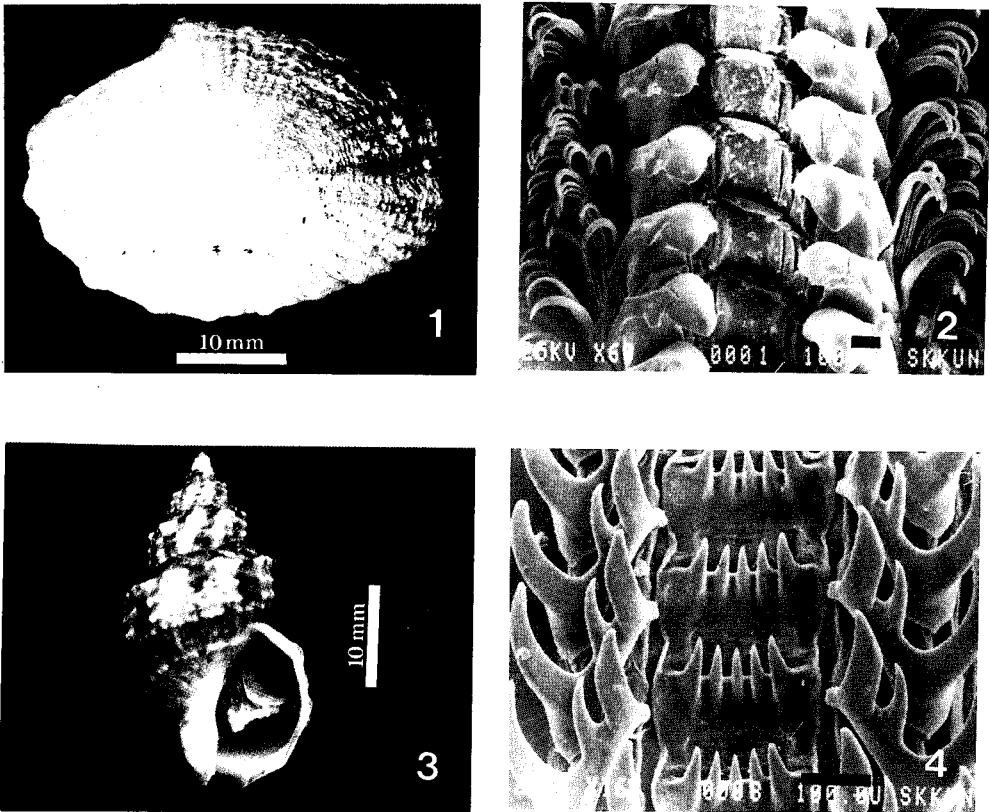
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PLATE



Figs. 1, 2. *Scelidotoma vadososinuata hoonsooi*, n. subsp.

1, Shell; 2, Radula

Figs. 3, 4. *Buccinum mirandum koreanum*, n. subsp.

3, Shell; 4, Radula.